

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An image expanding apparatus, comprising:
 - coding parameter detecting means for detecting coding parameters from an image code, said image code including a plurality of layout objects, each layout object of said plurality of layout objects including a plurality of tiles, said coding parameters including a number of layout objects of the plurality of layout objects that are in a particular page;
 - expanding parameter designating means for designating expanding parameters, said expanding parameters including a number of particular layout objects to be displayed in an expanded image;
 - extracting parameter calculating means for calculating an extracting parameter parameters based on the coding parameters and the expanding parameters, said extracting parameters including (i) one or more certain layout objects of the plurality of layout objects that are necessary for providing the expanded image and (ii) for each layout object of the one or more certain layout objects, one or more particular tiles of the plurality of tiles of the layout object that are to be used to provide the expanded image; and
 - code extracting means for extracting a code necessary for obtaining an the expanded image designated by the expanding parameters from the image code with reference to the extracting-parameter parameters.
 2. (Currently Amended) The image expanding apparatus as set forth in claim 1, further comprising:
 - image expanding means for obtaining an the expanded image designated by the expanding parameters based on the extracted code.
 3. (Original) The image expanding apparatus as set forth in claim 1,
 - wherein the code extracting means is configured to extract as the extracted code a code having a necessary resolution level of a necessary tile of a necessary layout object.

4. (Currently Amended) The image expanding apparatus as set forth in claim 3, wherein the coding parameters include ~~and further include~~ vertical and horizontal sizes in pixels of a page image, the number of layout objects in a page, and the size of a tile, wherein the expanding parameters further include an expanded image size proportional to the resolution of the expanded image, the number of layout objects to be displayed, the number of a layout object to be displayed, and an image display area for each of the particular layout object objects, and wherein the extracting parameter calculating means is configured to further calculate as the expanding extracting parameters a layout object necessary for expanding an image, a tile necessary for each layout object, and a resolution level necessary for expanding an image based on the coding parameters and the expanding parameters.

5. (Original) The image expanding apparatus as set forth in claim 1, wherein the image expanding apparatus deals with a compound document file format according to the JPEG 2000 system.

6. (Currently Amended) An image expanding method, comprising the steps of: detecting coding parameters from an image code, said image code including a plurality of layout objects, each layout object of said plurality of layout objects including a plurality of tiles, said coding parameters including a number of layout objects of the plurality of layout objects that are in a particular page; designating expanding parameters, said expanding parameters including a number of particular layout objects to be displayed in an expanded image; calculating an extracting parameter parameters based on the coding parameters and the expanding parameters, said extracting parameters including (i) one or more certain layout objects of the plurality of layout objects that are necessary for providing the expanded image and (ii) for each layout object of the one or more certain layout objects, one or more particular tiles of the plurality of tiles of the layout object that are to be used to provide the expanded image; and

extracting a code necessary for obtaining ~~an~~ the expanded image designated by the expanding parameters from the image code with reference to the extracting parameter parameters.

7. (Currently Amended) The image expanding method as set forth in claim 6, further comprising ~~the step of~~:

obtaining ~~an~~ the expanded image designated by the expanding parameters based on the extracted code.

8. (Original) The image expanding method as set forth in claim 6,

wherein the code extracting step is performed by extracting as the extracted code a code having a necessary resolution level of a necessary tile of a necessary layout object.

9. (Currently Amended) The image expanding method as set forth in claim 8.6,

wherein the coding parameters ~~include~~ further include vertical and horizontal sizes in pixels of a page image, ~~the number of layout objects in a page, and the a~~ size of a tile,

wherein the expanding parameters further include an expanded image size proportional to ~~the a~~ resolution of the expanded image, ~~the number of layout objects to be displayed, the number of a layout object to be displayed, and an image display area for each of the particular layout object objects, and~~

wherein the extracting parameter calculating step ~~is performed by~~ further includes calculating as the expanding parameters ~~a layout object necessary for expanding an image, a tile necessary for each layout object, and a resolution level necessary for expanding an image based on the coding parameters and the expanding parameters.~~

10. (Original) The image expanding method as set forth in claim 6,

wherein the image expanding method deals with a compound document file format according to the JPEG 2000 system.

11. (Currently Amended) A ~~computer~~ storing device storing a program product embedded on a computer-readable medium and comprising codes which, when executed on a computer, cause a causes the computer to perform an image expanding method, the image expanding method comprising the steps of:

detecting coding parameters from an image code, said image code including a plurality of layout objects, each layout object of said plurality of layout objects including a plurality of tiles, said coding parameters including a number of layout objects of the plurality of layout objects that are in a particular page;

designating expanding parameters, said expanding parameters including a number of particular layout objects to be displayed in an expanded image;

calculating an extracting parameter parameters based on the coding parameters and the expanding parameters, said extracting parameters including (i) one or more certain layout objects of the plurality of layout objects that are necessary for providing the expanded image and (ii) for each layout object of the one or more certain layout objects, one or more particular tiles of the plurality of tiles of the layout object that are to be used to provide the expanded image; and

extracting a code necessary for obtaining an the expanded image designated by the expanding parameters from the image code with reference to the extracting-parameter parameters.

12. (Currently Amended) The ~~computer program product~~ storing device as set forth in claim 11, wherein the image expanding method further comprising the step of comprises:

obtaining an the expanded image designated by the expanding parameters based on the extracted code.

13. (Currently Amended) The ~~computer program product~~ storing device as set forth in claim 11,

wherein the code extracting step is performed by extracting as the extracted code a code having a necessary resolution level of a necessary tile of a necessary layout object.

14. (Currently Amended) The ~~computer program product~~ storing device as set forth in claim ~~13~~ 11,

wherein the coding parameters further include vertical and horizontal sizes in pixels of a page image, ~~the number of layout objects in a page, and the a~~ size of a tile,

wherein the expanding parameters further include an expanded image size proportional to ~~the a~~ resolution of the expanded image, ~~the number of layout objects to be displayed, the number of a layout object to be displayed, and an image display area for each of the particular layout object objects~~, and

wherein the extracting parameter calculating step is performed by further includes calculating as the expanding parameters ~~a layout object necessary for expanding an image, a tile necessary for each layout object, and a resolution level necessary for expanding an image based on the coding parameters and the expanding parameters.~~

15. (Currently Amended) The ~~computer program product~~ storing device as set forth in any claim 11,

wherein the image expanding method deals with a compound document file format according to the JPEG 2000 system.